**Wendy Koo Water, Waste, Energy Course**

**Grade level: Kindergarten Instructor: Shakira Provasoli**

**Content Area – Science July 22, 2017**

**Topic – Recycling**

**Time Frame – 45 min**

**Professional Goal:**

**Component 3c - Engaging Students in Learning**

**NYS Science Scope and Sequence**

**Exploring Properties**

LE 3.1f – Objects and/or materials can be sorted or classified according to their properties.

This lesson is an introduction to recycling materials/objects for the students. Students would have already studied about pollution and the different properties of objects. By introducing recycling, the students will learn that recycling can save natural resources. In addition, the students will learn that they have the ability to directly impact their environment through recycling in their daily lives.

**Content Objectives:**

**Students will be able to:**

* Recognize that everyone contributes to the amount of trash created each day.
* Distinguish which materials can and cannot be recycled.
* Understand the different types of recyclable materials.
* Learn simple ways they can divert the amount of trash sent to landfills.

**Materials:**

* Photographs of landfills, ocean pollution, overflow trash
* Why Should I Recycle? By Jen Green
* Pbskids.org video – Sid the Science Kid: Recycling
* Recyclable objects (plastic: water and juice bottles, yogurt cups, milk jugs, cups, fork, book basket; paper: newspaper, soft cover books, printing paper, shoeboxes, cardboards, egg cartons, tissue/toilet paper roll, paper bags, pizza boxes; metal: soda/juice cans, aluminum foil and trays, cupcake trays; glass: baby food jars, jam jars)
* Non-recyclable objects (apple cores, cookies, sandwiches, styrofoam, plastic bags, Ziploc bags, saran wrap, juice pouches, bags of soil)
* Baskets – 2 labeled Recyclables, 2 labeled Non-Recyclables/Trash, 2 labeled Plastic, 2 labeled Metal, 2 labeled Paper/Cardboard, 2 labeled Glass
* Science notebooks and writing tools

**Motivation/Activating Prior Knowledge:**

Teacher will show students pictures of different landfills, pollution in the ocean, and overflow of trash. Students will turn and talk: Tell your partner what do you see? What do you notice in these photographs? What is happening? Students will share their responses with the class and teacher will write/draw them down onto chart paper. Teacher will ask, “Are all these trash/pollution good? Why or why not? Students will respond and teacher will write/draw them down. Students will turn and talk: Share with your partner, what are some things we can do to make it better? Students will share their responses with the class and teacher will write/draw them down onto chart paper.

**Mini-lesson:**

Teacher will say, “Today we are going to learn more about recycling our garbage.” Teacher will explain what recycling means to the students. “Recycle means taking something you don’t want anymore, like paper, and turning it into something new and useful, a new book. So before you throw out your trash, you need to sort out your garbage into different groups. The different groups are paper, plastic, metal, and glass. So today you are going to have a bag of recyclable trash. You will need to sort out the trash and put them into the correct recycling basket: for paper, glass, plastic, and metal.” Teacher will take a plastic water bottle and model: Hmm…what is this? This is a water bottle. What material is it made from? It is made of plastic. Where should I put it? I should put it in this basket for plastic. Teacher will call a few students to demonstrate where they would put other objects (soda can, baby food jar, drawing paper). Teacher will then read Why Should I Recycle? By Jen Green. This book will provide the context of why recycling is important. Main points to the book will be discussed with the class after reading the story. Students will go to their groups for activity. The students will switch group after 15 minutes.

**Activities:**

Group 1 and 3: Students will sort trash into two categories: recyclables and non-recyclables/trash. Each group will get a bag full of trash and two baskets (Recyclables and Non-Recyclables). Students will take turns taking out one piece of trash at a time and describe it. Each student will say: “I am a name of trash. I can/cannot be recycled” and then place that item into the corresponding basket. They will continue until there is no more trash in the bag. Teacher will walk around and provide support if necessary. Students will then create a T-chart titled “Recyclable or Non-Recyclable” in their science notebooks. They will fill out the T-chart based on items in the two baskets.

Group 2 and 4: Students will sort recyclable trash into four categories: paper, plastic, metal, and glass. Each group will get a bag full of different recyclables and four baskets. The baskets will be labeled paper, plastic, metal, and glass. Students will take turns taking out one item of recyclables at a time and describe it. Each student will say: “I am a name of recyclable. I am made out of paper/plastic/metal/glass. I can be recycled.” and then place that item into the corresponding basket. They will continue until there is no more trash in the bag. Teacher will walk around and provide support if necessary. Students will then create a four-column chart with the columns titled “Paper,” “Plastic,” “Metal,” and “Glass” in their science notebooks. They will fill in the columns based on the items in the four baskets.

**Whole Class Share**

Students will share: What did you learned today? How should we throw away our trash? Why is it important for us to recycle? What would happen if we do not recycle?

Show students “Sid the Science Kid: Recycling” video on pbskids.org

**Assessment Method**

Teacher will assess students through their oral responses to questions and their writing/drawing samples. Through students’ writings, the teacher will assess whether the students are able to (1) distinguish what materials can and cannot be recycled and (2) identify which object goes into which garbage bin.

**Extensions**

* Start recycling in the classroom – Make bins for each category: paper, plastic, metal, and trash
* Use recycled paper to make new paper
* Reuse plastic bottles/containers for planting
* Field trip to SIMS Recycling Cent

**Rubric**

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| --- | --- | --- | --- | --- |
|  | **4** | **3** | **2** | **1** |
| I can distinguish recyclables and non-recyclables. | I can distinguish all recyclables and non-recyclables. | I can distinguish most recyclables and non-recyclables. | I can distinguish some recyclables and non-recyclables. | I cannot distinguish any recyclables and non-recyclables. |
| I can distinguish the different types of recyclables. | I can distinguish all types of recyclables. | I can distinguish most types of recyclables. | I can distinguish some types of recyclables. | I cannot distinguish the different types of recyclables. |







